CLAIMS

1. A fructosylamine oxidase derived from *Fusarium proliferatum*.

2. A fructosylamine oxidase derived from *Fusarium proliferatum*, which has the following physicochemical characteristics:

(1) It is almost equally or more active on fructosyl valine as compared to fructosyl lysine;

(2) The optimum pH for enzyme reaction is 7.5;

(3) The optimum temperature for stability of enzyme is about 30-40°C; and

(4) The molecular weight is about 39 kDa when estimated by SDS-PAGE, and is about 39.4 kDa when estimated by gel filtration.

3. The fructosylamine oxidase of claim 2 which comprises the amino acid sequence shown in SEQ ID NO: 4.

4. A fructosylamine oxidase derived from *Fusarium proliferatum*, which has the following physicochemical characteristics:

(1) It is not detectably active on fructosyl lysine but is active on fructosyl valine;

(2) The optimum pH for enzyme reaction is 7;

(3) The optimum temperature for stability of enzyme is about 30-40°C; and

(4) The molecular weight is about 49 kDa when estimated by SDS-PAGE, and is about 58 kDa when estimated by gel filtration.

5. The fructosylamine oxidase of claim 4, which comprises the amino acid sequence shown in SEQ ID NO: 6.

6. A *Fusarium proliferatum* (FERM BP-8451) characterized in that it produces the fructosylamine oxidase of any one of claims 1 to 5.

7. A DNA encoding the fructosylamine oxidase of any one

of claims 1 to 5.

8. The DNA of claim 7, which comprises the nucleotide sequence shown in SEQ ID NO: 3 or SEQ ID NO: 5.

9. A host cell transformed with the DNA of claim 7 or 8.

10. A process for preparing a fructosylamine oxidase, which comprises culturing the microorganism of claim 6 or the host cell of claim 9 in a medium and recovering the fructosylamine oxidase from the culture.

11. A method of measuring amadori compound in a sample characterized in that the fructosylamine oxidase of any one of claims 1 to 5.